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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,399	04/15/2004	Roger D. Campana	P16605X	8163
28062	7590	02/22/2006	EXAMINER	
BUCKLEY, MASCHOFF, TALWALKAR LLC			KINKEAD, ARNOLD M	
5 ELM STREET			ART UNIT	
NEW CANAAN, CT 06840			PAPER NUMBER	
			2817	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/825,399

Applicant(s)

CAMPANA, ROGER D.



Examiner

Arnold M. Kinhead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1,7 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 8-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

DETAILED ACTION

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 22, line s 4 and 5, " integrated circuit die" lacks proper antecedent basis.

*Double Patenting*

3. Claims 1 and 7 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 32 of copending Application No. 10/453,944. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims, 1 and 7, of the present application are merely broader in scope with regards an impedance control method based on the proximity of an existing operation point and a resonant operation point...

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,7, and 22(as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins et al(6,608,291).

The reference by Collins et al discloses a device with current sensing(122), see figure 1, associated with an input voltage(transducer(104) driving voltage to the resonant circuit); the control voltage(130) to the VCO is the received current based voltage. The control signal circuit includes the PLL circuit , with phase detector(126) and VCO (102)and the sweep circuit which allows a control signal to be produced that will be at a reduced resonance point to locate the damped resonance point first(operating point) based on the phase error information, see col. 4 , , lines 40-45. The method steps being inherent. The response curve of the transducer circuit will be dependent on whether there is resonance damping or if there is frequency locking...for maximum response. In lines 30-40 of the same col. The self-impedance control is described. Voltage regulator(112,114) is shown.

The reference does not describe the operating point characteristic of the control signal based on the proximity...however,

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the desired existing resonant point and current operating point difference will be rectified by the sweep control signal circuit, as is conventional with the PLL playing the central role of providing the required control signal to ultimately affect the impedance.

In light of the above it would have been obvious to one of ordinary skill in the art to have recognized that the PLL with sweep control would allow the Collins reference to meet the operational point characteristics for the control signal.

*Allowable Subject Matter*

6. Claims 2-6, 8-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 23-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 14-21 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold M. Kinhead whose telephone number is 571-272-1763. The examiner can normally be reached on Mon-Fri, 8:30 am -5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnold M Kinkead

Primary Examiner

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Arnold Kinkead

02-16-06